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REMARKS

In the latest Office Action, claims 1-6 were rejected under 35 U.S.C. 102(b) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Niu et al. U.S. Patent No. 6,783,702. The Examiner has maintained that the declaration filed by applicant on October 18, 2004 is ineffective to overcome Niu '702, asserting that there is no patentable distinction between the respective claims of the present invention and the claims in the '702 patent. With this amendment, applicants have amended independent claims 1 and 4 to recite the specific polymers used to form the conductive nanocomposite material; namely, polyurethanes, polyimides, epoxy resins, silicone polymers, and aromatic-heterocyclic rigid-rod and ladder polymers. Basis for this amendment may be found in the specification at page 4, lines 25-27. Niu et al. clearly teach composites formed from polyvinylidene fluoride polymers. Applicants' claims, as amended, and Niu's claims recite different subject matter and are directed to different patentable inventions. Accordingly, applicants submit that the previously filed declaration is sufficient to remove Niu et al. '702 as a prior art reference.

Claims 1-6 stand rejected under 35 U.S.C. 102(b) as anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Nahass et al., 5,643,502. The Examiner maintains that Nahass inherently meets all of the claimed limitations. Applicants strongly disagree. Nahass does not teach or suggest conductive nanocomposite materials formed by combining polymers with a solvent to form a homogeneous mixture, followed by removal of the solvent as recited in claims 1 and 4. Rather, Nahass teach combining carbon fibrils in the form of aggregates with a polymer and then applying shear to break down the aggregates. Nahass does not teach or suggest the use of a solvent to form a homogeneous mixture as claimed.

With regard to claim 5, it is noted that Nahass does not teach or suggest a nanocomposite material formed by the claimed method which comprises heat-treated vapor grown carbon nanofibers as claimed. Claim 6 is also believed to be patentable over Nahass as Nahass does not teach or suggest a nanocomposite material formed by the method of claim 1, from which claim 6 depends.

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And, as previously pointed out, applicants teach the use of carbon nanofibers having a diameter from about 60 to 200 nm in diameter, while Nahass et al. teach the use of carbon fibrils in the form of aggregates having a much larger diameter of 35,000 nm. Accordingly, the composite product of Nahass et al. is not identical to the claimed nanocomposite material. Claims 1-6 are clearly patentable over Nahass et al.

For all of the above reasons, applicants submit that claims 1-6, as amended, are patentable over the cited references and are in condition for allowance. Early notification of allowable subject matter is respectfully requested.

Respectfully submitted,

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